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70pn, Number 10/766,051

(Quyen C. Hoang)

Replacement Claims

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Claims:

What is claimed as new and desired to be secured by Letters Patent of the U.S. is:

1. A vehicle wheel, comprising:

- a. an air valve and stem located at the center of the hub of said wheel so as to be situated substantially in front of and substantially covering the wheel spindle mount as viewed from the perspective of the street side of the wheel,
- b. said air valve and stem are in operative and flow communication with at least one inflation air corridor that terminates in an inflation air nozzle,
- c. said inflation air corridor is of a predetermined length and is situated in a predetermined location about the wheel spoke so as to be hidden from view from the street side of the wheel,
- d. said inflation air nozzle is located at a predetermined area between the lips of the wheel,

whereby air can be introduced into the interior region of a tire mounted on the wheel,

whereby, the air pressure of the tire can be controlled through an inflation system that is hidden from view and is thus more aesthetically pleasing and also limits unwanted access to said inflation system.

- 2. A wheel as claimed in claim 1, wherein the air valve and stem is housed in and connected to an air valve chamber in physical, operative and flow communication with at least one inflation air corridor.
- 3. A wheel as claimed in claim 2, wherein said air valve chamber is covered by a decorative cap or lid.
- 4. A wheel as claimed in claim 3, wherein the air valve chamber has a threaded female joining feature at a predetermined area to receive a corresponding male threaded air valve and stem.

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- 5. A wheel as claimed in claim 2, wherein the air valve chamber is threadedly joined to the spindle mount area of the wheel.
- 6. A wheel as claimed in claim 2 wherein the air-valve and stem has a male threaded joining feature at a predetermined area to join with the female threaded joining feature of the air valve chamber.
- 7. The air valve and stem as claimed in claim 2 wherein said air-valve and stem are of a compact design and metallic in composition.
- 8. A wheel as claimed in claim 2 wherein the inflation air corridor is formed by a hollow tube secured in a groove which is located at a predetermined area on the break caliper side of the wheel spoke with said hollow tube connected to and in flow communication with the air valve chamber and inflation air nozzle.
- 9. A method for inflating and regulating pressure in the interior region of a tire mounted on the rim of a motor vehicle wheel in an optimally aesthetic manner, comprising:
 - (a) providing an air pressure regulating means located at a predetermined point about the center of the hub of said wheel so as to be situated substantially in front of and substantially covering the wheel spindle mount as viewed from the perspective of the street side of the wheel,
 - (b) providing at least one air communication means of a predetermined length physically and operatively connected to said air pressure regulating means to transfer air into and out of the interior region of a tire mounted on the wheel rim with said air communication means formed by a prefabricated hollow tube of a predetermined material.
 - (c) providing at least one groove which is located at a predetermined area on the break caliper side of the wheel in which to house the air communication means.

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- (d) providing an attachment means to securely attach said air communication means within said groove,
- (e) providing an inflation air ingress and egress means at a predetermined point on said air communication means with said ingress/egress means situated at a predetermined point between the lips of the wheel,
- (f) providing corresponding grooves of a predetermined proportion and dimension on at least one of the remaining spokes so as to keep the wheel in a properly balanced condition,

whereby air can be introduced into the interior region of a tire mounted on the wheel,

whereby, said air pressure regulation can occur in said wheel without the aesthetic drawbacks of the prior art as herein mentioned,

whereby, existing wheels can be more easily modified to implement the wheel integrated tire air pressure regulation system over the prior art as herein mentioned,

whereby, said wheel integrated tire air pressure regulation system can be more easily made without significant additional procedures in the manufacturing process as compared to the prior art as herein mentioned.